

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

**Mangiardi et al.**

Confirmation No. 4411

Application No. 10/618,223

Filed: July 11, 2003

For: **LUMEN-MEASURING DEVICES AND  
METHOD**

Group Art Unit: 3736

Examiner: Emily M. Lloyd

Attorney Docket No. 37621/51301

Date: July 13, 2010

INFORMATION DISCLOSURE STATEMENT

TO THE COMMISSIONER FOR PATENTS:

1. Pursuant to the duty of disclosure, documents listed on the accompanying Form PTO-1449 (or equivalent) are presented for the Examiner's consideration.
  - ☒ Copies of listed U.S. patents and U.S. patent application publications are not required for submission. (37 C.F.R. § 1.98(a)(2)(ii))
  - ☒ Copies of listed foreign patent documents and/or non-patent literature are enclosed. (37 C.F.R. § 1.98(a)(2))
  - ☐ Copies of the documents listed at (sheet/cite no.) \_\_\_\_\_ of the attached Form PTO-1449 (or equivalent) are omitted because (1) they are already of record in U.S. Patent Application No. \_\_\_\_\_, filed \_\_\_\_\_, on which this application relies for an earlier filing date under 35 U.S.C. § 120; and (2) any information disclosure statement filed in the prosecution of Application No. \_\_\_\_\_, complies with 37 CFR §§ 1.98(a) through (c). (37 C.F.R. § 1.98(d))
  - ☐ A copy of copending U.S. Patent Application No. \_\_\_\_\_, filed \_\_\_\_\_, for \_\_\_\_\_, listed at (sheet/cite no.) \_\_\_\_\_ of the attached Form PTO-1449 (or equivalent), ☐ is enclosed / ☐ is omitted. (Copy not required if available via IFW. 1287 OG 163 (Oct. 19, 2004).).
2. This information disclosure statement is being submitted (check box a., b., or c.):
  - a. ☐ Within three months of the filing date of a national application or entry of the national stage in an international application; or before the mailing of a first Office action on the merits; or before the mailing of a first Office

action after the filing of a request for continued examination under 37 CFR 1.114. (No statement under 37 CFR 1.97(e) is required.); or

- b. ☒ After the period set forth in paragraph 2a, but before the mailing date of either a final action, a notice of allowance, or an action that otherwise closes prosecution in the application. (Check box i. or ii.)
- i. ☒ The \$180.00 information disclosure statement submission fee set forth in 37 CFR 1.17(p) is paid herewith, or
- ii. ☐ A statement specified by 37 CFR 1.97(e) is set forth below; or
- c. ☐ After the mailing date of a final action or notice of allowance and on or before payment of the issue fee. A statement specified by 37 CFR 1.97(e) is set forth below. Enclosed is the \$180.00 information disclosure statement processing fee set forth in 37 CFR 1.17(p).

3. Fee Payment

- a. ☐ A check in the amount of \$\_\_\_\_\_ is enclosed.
- b. ☒ Payment by credit card.
- c. ☐ Please charge our Deposit Account No. 502375 in the amount of \$\_\_\_\_\_.
- d. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required in connection with filing of these papers, or credit overpayment to Deposit Account No. 502375.

4. If a statement specified by 37 CFR 1.97(e) is required, the attorney or agent signing below hereby states that:

- ☐ each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement; or
- ☐ no item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement.

5. ☒ A concise explanation of the relevance of each document not in the English language and/or selected documents in the English language is set forth below.

Respectfully submitted,

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By



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#### **WIRE FOR MEASURING DIAMETER OF BLOOD VESSEL**

Abstract: JP19999573

**PROBLEM TO BE SOLVED:** To provide a wire 1 for measuring the diameter of a blood vessel which enables accurate measurement of the diameter D3 of a constricted blood vessel and the diameter D2 of a normal blood vessel in the expansive treatment of a constricted part 10 of a coronary artery by a balloon or the like.

**SOLUTION:** The main body of this wire is a flexible very slender wire body 2 which is inserted into a blood vessel from the tip part 5 of the wire while a wire operating part 4 at the rear end thereof is placed outside. A measuring ball body 3 which is fastened on the wire body 2 as round ball with the diameter D1 piercing the wire body 2 in the radial direction thereof while being made of a non-radiation transmitting material is disposed following the wire tip part 5 of the wire body 2. The measuring ball body 3 is inserted into a constricted part 10 of the blood vessel of a patient to measure and calculate the diameter D3 of the constricted blood vessel and the diameter D2 of a normal blood vessel using the diameter D1 thereof measured by radiation outside a human body as reference.

